

1 AGCTTTATAA CCATGTGATC CCATCTTATG GTTCAATCC ATGCACAGGA
 51 GGAAAATTGT GGGCACGAAG TTCCAAAGG GAAAATTTAT AGATTGGTAG
 101 TTAATGAAAT ACAGTTTCC TCCTTGGCAA ATTTAATTTA CTAGCTTCAC
 151 TGTATAGGAA AAAGCAGGAA AAAAATTAAA ACCAACTCAC CTCCAAACCT
 201 GTTTTGAGCT TTTACTTGTC TGCCCAATTG ATAGTTTCTA CTCTCTGCTT
 251 TTGATGAAAA TATTTTTTAT TATTTTAATG TAACTTCTGA AAATAAATT
 301 ATCTAGAAGC AAATAAAAAG ATATTGCTTT TATAGTTCCC AGAAGGAAAA
 351 AACAAACACT AGGAAAGTTC TATCTATCAG ATGGGGGAGA TGTGATGGAG
 401 GCAGTGATAT TTGAGCTGAG CCTTGAACAA TGAACAGGAG TCTACCAAGC
 451 GAGAGGCTAG CGGGTGGCCC TCAAGATAAA ACAACAGCAT GTACAAAGGC
 501 ATGGAGACAT ACACATCTTG ACTCTTCCAG GAATGGTGGG AACGCTGGTG
 551 GAGCTAGAAT GTAGGTACAT AGCATAAAGT GGCAGACGGG AAGCCTTTGG
 601 AAATCTTATT ACATAGGACC CTGGATGCCA TTCCAATGAC TTTGAATTTT
 651 CTGTAGGCTG CCAGCGAAAT TTCCAAGCGT GATAGAGTCA TGTCTATCTA
 701 TGCACTTCAG AAAGACAACC TCAGGGTTAA TGAAGAAAAT GCATTGGAAT
 751 ATAAGAACT GGTGACCAGA GTGATCAATT GCATGACTGT TGTGAAAGTC
 801 CAGGTGAGGG GAGCTGTGGG CAAGGTCAGA GTTGAGAGGC ATTTAGAGA
 851 TAAATGACA GTAACAAAGT AGATGTCAGG CTGAGAAGAA AGGGCTGTAC
 901 CAGATATATG GTGCTATCAT TAAGTGAGCT CAACATTGCA GAAAAGGGGT
 951 AGGTTTGGTG GGAGTTGCTC ACAAACATG TTTAGTCTAA GCAAACCAT
 1001 TGCCATGGGC TCAGATAAAA GTTAAGAAGT GGAAACCATT CCTACATTCC
 1051 TATAGGAGCT GCTATCTGGA AGGCCTAGTA TACACGTGGC TTTTCAGCTG
 1101 TGATTTTGTT TGATTTTAGG GATTATTCTT TTTCTGAATC TGAGCAATGT

FIG. 1

1151 TAGCGTGTA AATACTCACA CCCACAGCTT TGACTGGGTG AGAAGTTATC
1201 ATAAATCATA TTGAGTTTGT TGTGATACCT TCAGCTTCAA CAAGTGATGA
1251 GTCAGGTCAA CTCCATGTGA AAGTTCCTTG CTAAGCATGC AGATATTCTG
1301 AAAGGTTTCC TGGTACACTG GCTCATGGCA CAGATAGGAG AAATTGAGGA
1351 AGGTAAGTCT TTGACCCAC CTGATAACAC CTAGTTTGAG TCAACCTGGT
1401 TAAGTACAAA TATGAGAAGG CTTCTCATTC AGGTCCATGC TTGCCTACTC
1451 CTCTGTCCAC TGCTTTCGTG AAGACAAGAT GAAGTTCACA GTGAGTAGAT
1501 TTTTCCTTTT GAATTTACCA CCAAATGATT GGAGACTGTC AATATTCTGA
1551 GATTTAGGAG GTTTGCTTCT TATGGCCCCA TCATGGAAAG TTTGTTTAA
1601 AAAAATTCTC TCTTCAAACA CATGGACACA GAGAGGGGAA CAACACACAC
1651 CAGGTCCTGT TGGGGGGTGG AGAGTGAGGG GAGGGAAGTT AGAGGACAGG
1701 TCAATAGGGG CAGCAAACCA CCATGGCACA CATATACCTA TGTAACAAAC
1751 CTGCACGTTT TGCACATGTA TCCCTTTTTT TTAGAAGAAG AAATAATGAA
1801 AAAAAACCTT TTTTCTATTT ATATAATCAT GGCATTTATA AGCATCTCTA
1851 TAGAGAAGGA TAATTGTGCT GAGATTAGAC AGCTGTCTGA GCACCTCACA
1901 CTGACCTATT TTAAACAAAA TGACTTTCCA CATCACCTGA TTTCGGCTCC
1951 ATGCRGGGTA AGCAGTTCCT AAGCCCTAGA AAGTGCCGAT CATCCCTCAT
2001 TCTTGAATTC CTCCTTTTAT TTACCAAAT TCCTGAGCAT GTTCAGGAAA
2051 GATGAAAAGC TTATTATCAA AATAAGTGGC TGAGATAGAC TTCTTGTCAC
2101 ATTTGTTACA GTAAAATGGG TCTCCAAGAA AGAAAGATTT GCCTTGGGCT
2151 CTAGCATGGC CATTTATTTA AGAAAGCATC TGAAACATGA AGCTACCACA
2201 GCATCTCTCC TGTGGTTCCA GACGGAAGCC TGAGAGTCTA GGAGGAGGTG
2251 GACCGAGAAA CCCTGCCAAA GTAAC TAGTA GTGCCGGGTT TCTCACAACA
2301 CGATGCAAAG GGGCTAGAAT CAGATGACTA TTTTCATGTT TCAACATACT

FIG. 1 Cont.

2351 ACACACTGGA AAACGTTACG GCAGACTCTA CTTTATAATG GGGCTGCAAA
2401 TGTAAGATGA CTAAGAGAAC TAGGTCCTCT TAATAGCAGC AAAGTTTAAA
2451 AGGGTCAGAG GGAGCTCCAG ACACAGGTTA GATTTGATT CTCTCCTAGT
2501 TCTGCTGTGA ACAAGAGGTA TAAGTTTGGC CAACTCACTT AACCCCTGAA
2551 GCTCAGTTAC CTTATCTGTA AAATGATTGC ATTGTACTAG GTGTTCTCTA
2601 AAATTTCTTC TACCTCTGAC TTTTtaggag ACTAATTTTT AACTCCTTTT
2651 TAAGCTATTG GGAGAAAAAT TTAATTTTTT TTCAAAAGTT ACCTGAATC
2701 TCTAGAGCAG TTCTCAAAAC TATTTTGTCC CAGGCAAAGG AAATGAGACT
2751 AGGTACCCAG AATGAGGCAC CCTGCATAAA GCTCTGTGCT CTGAAAACCA
2801 ATGTCAGGGA CCCTGTGATA AATAATTAAA CCAAGTATCC TGGGACACTG
2851 CTAGTGACAT CGCCTCTGCT GATCACTCTT GCCAGCGAGA CACTCTATAC
2901 TTGCTTTCTC ATCATTGGCA TCCAAACTGC CTACTAATCC ATTGCTTTGG
2951 AAAGTTTTTT TTAATAAAAA GATTATTTCT ATTAGGAGGA AAACATCCCA
3001 TGTAAATAG GAAAATTAAC TGAAATCATT TTCAGATGTG ATTTTtagca
3051 CTTATAGCCA TTTCAAACCA TGGTATTCAT TTATACTATG CTATTTATTG
3101 TAAACTTCT TTTTTTTTCC AAGGAAAATA AGATAGTTTG CTTTATTTTA
3151 AAACAGTAAC TTTCTTATAT TGGGGCACTG ACCAAAATTC AATACTGGTA
3201 CAAATATGTT ACCTAGGGGG TCAAATATG TGCCAGGTGA ATTTTCTGAA
3251 TTTCTCTAAA GAGAGAATTT TAAACCTTAT AAAACAATTA GAAACAAGTG
3301 AGTGAGAGGT GAGCATCAAC AACCTGTGTA ACATAAGCCA CAGTACAAAT
3351 TTAAGCTGAA TAACCAAGCC ATGTCAGTTA TCCCAAATCA TTTTGTAA
3401 TATTTAGGAG GATACACATA TTTTCAATAA CTTAAAAGTG AATCTTTACT
3451 CCTATCTCTT AATACTCGAA GAAGTATAAC TTTCTTCTTT TACTAGATTT
3501 AAATAATCCA AATATCTACT CAAGGTAGGA TGCTGTCATT AACTATAGCT

FIG. 1 Cont.

3551 GAGTTTATCC AAAATAGAAA AATCATGAAG ATTTATAAAG CATTTTAAAA
3601 ATAATCATTT ATAGCAAGTC CTTGAAAGCT CTAAATAAGA AAGGCAGTTC
3651 TCTACTTTCT AATAACACCT ATGGTTTATA TTACATAATA TAATTCAACA
3701 AAACAGCATT CTGACCAATG ATAATTTATA GGAAATTCAT TTGCCAAGTA
3751 TATGTTTAT TATAAAGTTA ATATTTTGAC CAATCTTAAA AATTTTAAAA
3801 CTCTATTCTG ACATTTCAG AAGTATTATC TTAGCAAGTC ATCTTTATGA
3851 TACCACTTAT TAAACTGAAG AGAAACAAGA TGGTACATTC TGGGTTTAC
3901 TTTAAAAGGG ATTTGATTCA ATAATTTGAT TTATCACTAC TTGAAAATTA
3951 CATTTTCTTC CTCAGACTGG ATGGCAATGA GATGAAAGCA GCTTTCCTGG
4001 CTCTCAACTT CCCTTCTTCA TCAATTTTTC CAGCGTTTCA TAAGGCCTAC
4051 ACTAAAAATT CTAAACTAT ATATCACATT AATATAATTA CTTATAATTA
4101 ATCAGCAATT TCACATTATC GTTAAACCT TTATGGTTAA AAAATGCAAG
4151 GTAAGAGAAG AAAAAACAC ATTGAACTAG AACTGAACAC ATTGGTAAAA
4201 TTAGTGAATA CTTTTCATAA GCTTGGATAG AGGAAGAAAG AAGACATCAT
4251 TTTGCCATGT AACAGGAGAC CAATGTTATT TGTGATTTC GATTGTCTTT
4301 GCTGGACTTC TTGGAGTCTT TCTAGCTCCT GCCCTAGCTA ACTATGTAAG
4351 TCTCACCTTT TCAAGTTTGC TACCAAATG CATTTGCAAG GAAATGTGAT
4401 ATTAAATCAC TCTCAATCTC TTATAAACTT CAGAATATCA ACGTCAATGA
4451 TGACAACAAC AATGCTGGAA GTGGGCAGCA GTCAGTGAGT GTCAACAATG
4501 AACACAATGT GGCCAATGTT GACAATAACA ACGGATGGGA CTCCTGGAAT
4551 TCCATCTGGG ATTATGGAAG TGTAGGTAGT CAACGTGCAA TTTTCACTTT
4601 ATTGTTTAAA AATACGACTT CTTTTTAACA AAAAATGTGC ATGTTAACCA
4651 TAAAGAAATT AAAAATAAAT TCTAATTACA CATAGCATAC AGTTATAAGT

FIG. 1 Cont.

4701 AAAGGTGACC ATTTTGCTCA TCCGATTTTG TTCCCTAGAG ATAACACTG

4751 TTAATAAGTG TTGCATGATC AGTTAAAATT CAAACCAACA AACACTATGT

4801 TCAAGGGATT GTGGGTATAT ACAACAAATA TGAACATCCT TTTGCCTTGC

4851 CTGCAGATAC CCTCAATAAT GCTGAAAGAC TTATACAACA TTACTGCTTC

4901 CAAAGCTTAG ACTATCTCAC TTTGTTTTCA AAGGAGGTTT TACGACCTTC

4951 TAAAGAGATT GAAATTGACA TTTCACCTAA AACTCGGGAA ATGTAAATGA

5001 CAATATTAAT TGGAAGAGA GGAAAGAAGA AAGAAAGAAG GAAGGAAAGA

5051 AAGAAAGAAG GAAGGAAGGA AAGAAAGAAA GAAAGAAAGA AAGAGAGAGA

5101 AAGAAAGAAA AAGAAAAAAG AGAGAAAGAG AGAAGGAAAG AAAGAGAGAA

5151 GGAAAGGAAA AGAGAAGCAA AGAAAGAGAG GAGCAAAGAA AGGAACACTT

5201 AGCACTAGTT GGGAGACCCA ACTCTGGAAT TATCAGCTAT ATATTTAACA

5251 AACGTTATAC TTTTAAATAG CAAACTCTTT ATTGTTTCAA TTTTATCTGG

5301 TCAATTGGAA AAATAATTTT TGTCTTATCT GTCTCCTTGA AATGTGAGGA

5351 TCAAAGGAGA CTAAAACATG ATAGCTTTTA AAGTCTATTT CAGTAAAACA

5401 GACTTATATA GAGGGGTTTT TATCATGCTG GAACCTGGAA ATAAAGCAAA

5451 CCAGTTAGAT GCTCAGTCTC TGCCCTCACA GAATTGCAGT CTGTCCCCAC

5501 AAATGTCAGC AATAGATATG ATTGCCAAGC AGTGCCCCAT CCAGTGCTCT

5551 TATCCCAGCT CATCACGATC TTGGAGTTCC CATTTCTCTC TGCAGGTGGA

5601 ACTGACCTCT GATAAGAAAA GCTCCTCGGA GAACACATGC CTCACTATTT

5651 GCCATCTACT TTAACAGGGC TTTGCTGCAA CCAGACTCTT TCAAAGAAG

5701 ACATGCATTG TGCACAAAAT GAACAAGGAA GTCATGCCCT CCATTCAATC

5751 CCTTGATGCA CTGGTCAAGG AAAAGAAGGT AAAAATAAAA GGCTTTTTAT

5801 TTTTGGTGAG GGGAGAGGTT TTACATCCTT CAGTAAATAA CGAGAAGATC

5851 ACAGTCATTC CCTCTTGACT ACAGTATGTT GTAGTGTGCA GCACAAAGGG

FIG. 1 Cont.

5901 GGAAGTTATT GGTGATTGCC TGAGGGAAGG CAACTTCTGC CACATCAAAT
 5951 GCTGTGGCTC ACACCTACCT CTACAACCGC TGAGCAAAGC ACTTGAAACC
 6001 TTGACTGTTA GAGGAGCAAA GCTCTGGTCA CACCAATAGG AGCCTCAGTA
 6051 CTTTGCCAAG GACATTTTTC TGCAAGAGTT AGTTAGGGTT ATTAGATTTA
 6101 GCAAATGAAA ATAGAAGATA TCCAGTTAGG TTTGAATTTT AGGTAAGCAG
 6151 CAGGTCTTTT TAGTATAATA TATCCTATGC AATATTTGGG ATATACTAAA
 6201 AAAAGATCCA TTGTTATCTG AAATTCAAAT GTAACGGGT ATTGTATATT
 6251 TTGTCTGGCC ATACTAATCC AGGTGAGTGG AAAGAAGAGA TCCATAATGT
 6301 TTTAAAATAT TTGCCTGAGT TCATATTCCT ATAACGATA AATGAGTACC
 6351 TTTCATTGAC AAGGTAGAGA AAATAAATAA ACTGCATTCT CAGAAGATGA
 6401 TTATTACATA GTCTAATCCA AGGAATCTAT GATGACCAA TGAGGTCCAA
 6451 GTTGCAAGAT AAATTAAGCC TCAGACTTCT GTGTTTATGA GAAGCTGAGG
 6501 TTTCAAACCA GGTAAATCCC TTAGGACACT TAGAAATGCT AAGATATACA
 6551 GAATAAGCTA GAAATGGCTC TTCTTCATCT TGATTATGGA AAAATTTAGC
 6601 TGAGCAACAC TCACTGTTGG CCTCGTATAC CCCTCAAGTC AACAAACCAC
 6651 TGGGCTTGGC ATTCATTCTC TCCCATTCTT CCTTTCTACC TCTCTTTTCC
 6701 AACTCAGCT TCAGGGTAAG GGACCAGGAG GACCACCTCC CAAGGGCCTG
 6751 ATGTACTCAG TCAACCCAAA CAAAGTCGAT GACCTGAGCA AGTTCGGAAA
 6801 AAACATTGCA AACATGTGTC GTGGGATTCC AACATACATG GCTGAGGAGA
 6851 TGCAAGGTGA GTAGCATCCC TACTGTGCAC CCCAAGTTAG TGCTGGTGGG
 6901 ATTGTCAGAC TATCCTCGCG CGTGTCCATA GTGGGCACCA GTGATGCAGG
 6951 GATGGTCATC AAGGCCAACA TTTGTGCAGT GCTTGCTCTG TGCCAGGTAC
 7001 TGTTCATATG GCTTTAAGTG TGTAACTCG GTTCTTCACA GCAATCTTAT
 7051 AGGTTCTATT TTAATCCTAC TTTATGGATG AGGAACTGA GGTACAGAGA

FIG. 1 Cont.

7101 GGTCACAAAA TCCTTGCCTG GGTCAATTCC AAGCATTTTG GCTGTGGATT
7151 CTGTGCTCTT AAATATTATG GAACACTGCC TTTTAAGTGT GAATCAAGAG
7201 TAGACTCAAG TCATATTCAA AAGAATGCAT GAATGGCTAA ATGAAAGAAG
7251 AATGCTAATA GAATCTATTA ACTTTCTATA GCTCAGACAA TCACTTAATT
7301 TCTGGACATT CAAAGAACAG CTGCACACAA ACAAAGTGTC TACCTAGGGA
7351 CCTAACTTAA TGGCAATTTT CCAGATCTCT GAATTGATTG ATTCATCAC
7401 AACAAAGTAGA TAAACCTTGA CATTAGCACA TAGCTAGTTT GGAAACCCCT
7451 ACTCCCCCAA TCCCCTCCAA GAAAAGAGTC CTTAAATAGA CATTAAATATA
7501 GGCTTCTTCT TTTCTCTTTA TTAGAGGCAA GCCTGTTTTT TTA CT CAGGA
7551 ACGTGCTACA CGACCAGTGT ACTATGGATT GTGGACATTT CTTCTGTGG
7601 AGACACGGTG GAGAACTAAA CAATTTTTTA AAGCCACTAT GGATTTAGTC
7651 ATCTGAATAT GCTGTGCAGA AAAAATATGG GCTCCAGTGG TTTTACCAT
7701 GTCATTCTGA AATTTTTCTC TACTAGTTAT GTTTGATTTC TTTAAGTTTC
7751 AATAAAATCA TTTAGCATTG AATTCAGTGT ATACTCACAT TTCTTACAAT
7801 TTCTTATGAC TTGGAATGCA CAGGATCAAA AATGCAATGT GGTGGTGGCA
7851 AGTTGTTGAA GTGCATTAGA CTCAACTGCT AGCCTATATT CAAGACCTGT
7901 CTCCTGTAAA GAACCCCTTC AGGTGCTTCA GACACCACTA ACCACAACCC
7951 TGGGAATGGT TCCAATACTC TCCTACTCCT CTGTCCACTG CTTAA

FIG. 1 Cont.

1 CATGCTTGCC TACTCCTCTG TCCACTGCTT TCGTGAAGAC AAGATGAAGT
 51 TCACAATTGT CTTTGCTGGA CTTCTTGGAG TCTTTCTAGC TCCTGCCCTA
 101 GCTAACTATA ATATCAACGT CAATGATGAC AACACAATG CTGGAAGTGG
 151 GCAGCAGTCA GTGAGTGTC ACAAATGAACA CAATGTGGCC AATGTTGACA
 201 ATAACAACGG ATGGGACTCC TGGAAATCCA TCTGGGATTA TGGAAATGGC
 251 TTTGCTGCAA CCAGACTCTT TCAAAAGAAG ACATGCATTG TGCACAAAAT
 301 GAACAAGGAA GTCATGCCCT CCATTCAATC CCTTGATGCA CTGGTCAAGG
 351 AAAAGAAGCT TCAGGGTAAG GGACCAGGAG GACCACCTCC CAAGGGCCTG
 401 ATGTACTCAG TCAACCCAAA CAAAGTCGAT GACCTGAGCA AGTTCGGAAA
 451 AAACATTGCA AACATGTGTC GTGGGATTCC AACATACATG GCTGAGGAGA
 501 TGCAAGAGGC AAGCCTGTTT TTTTACTCAG GAACGTGCTA CACGACCAGT
 551 GTACTATGGA TTGTGGACAT TTCCTTCTGT GGAGACACGG TGGAGAACTA
 601 AACAAATTTT TAAAGCCACT ATGGATTTAG TCATCTGAAT ATGCTGTGCA
 651 GAAAAAATAT GGGCTCCAGT GGTTTTTACC ATGTCATTCT GAAATTTTTC
 701 TCTACTAGTT ATGTTTGATT TCTTTAAGTT TCAATAAAAT CATTTAGCAT
 751 TG

FIG. 2

1	MKFTIVFAGLLGVFLAPALANYNIDVNDDNNNAGSGQQSVSVNNEHNVAN	50
51	VDNNGWDSWNSIWGYGNGFAATRLFQKKTCIVHKMKKEVMPSIQSLDAL	100
101	VKEKKLQKGPGGPPPKGLMYSVNPKNVDDLKFGKNIANMCRGIPTYMA	150
151	EEMQEASLFFYSGTCYTTSVLWIVDISFCGDTVEN	185

FIG. 3

1 GAATTCAAAC AGCAGGCCAT CTTTACCAG CACTATCCGA ATCTAGCCAT
 51 ACCAGCATTC TAGAAGAGAT GCAGGCAGTG AGCTAAGCAT CAGACCCCTG
 101 CAGCCCTGTA AGCTCCAGAC CATGGAGAAG AGGAAGGTTG TGGGTTCAAG
 151 GAGCTTTTCA GAGTGGAAT CTGTGGATCA GTGATTTATA AAACACAGTT
 201 TCCCCCTTTA TTAGATTGTA ACCACCAGCT TCAGTTGTAG AAGAGAACAG
 251 GTTAAAAAAT AATAAGTGTC AGTCAGTTCT CCTTCAAAC TATTTTAAAC
 301 GTTTACTTAT TTTGCCAAGT GACAGTCTCT GCTTCCTCTC CTAGGAGAAG
 351 TCTTCCCTTA TTTTAATATA ATATTTGAAA GTTTTCATTA TCTAGAGCAG
 401 TGGTTCTCAT CCTGTGGGCC ATGAGCCCTT TGGGGGGGTT GAACGACCCT
 451 TTCACAGGGG TCACATATCA GATATCCTGC ATCTTAGCTA TTTACATTAT
 501 GATTCATAAC AGTAGCAAAA TTAGTTAGGA AGTAGGAACA AAATAACGTT
 551 ATGGTTGTGG TCACCACTAT GTTAGAGGGT CCGCAGCATT CAGAGGGTTG
 601 AGAACTGTTG TTCTAGAGGC AAATAAGAAG ACAGAGTTC TTGATAGGGC
 651 CCAGAGGCAG TGAAAGAAGT TTCCACGTAG AAAGTGAAGA AGGTCTGGTG
 701 TCCGAAGCAG TGAGGAACTT AAAAAAGAA AACCAGAAAC ATTGCCAACT
 751 AACAGTCCAG GAGAAGAGCG GGGCATGAAA GGCTGAGTTC CCATGGGATG
 801 CCTTGAATGG AATCAGAGTG TGGGAAAATT GGTGTGGCTG GAAGGCAGGT
 851 GCCGGGCATC TCAGACGCTG GTAGCTGGGG AACAGGAAA CCCCTTTAGG
 901 ATCCCAAGAT GCCATTCCAA TGAGCTTGAG ATTTTCTCA TGGACTGCCA
 951 GTGAATGTTT CTACGCTCCG GAAATTAATG TTTACTTATT TTCCATATTC
 1001 TAGGGGAGAA CCCTGGGAAA AATGGAGGAC ATTCATTGAA ATATCTGAGT
 1051 CCTGGGATAA GGCAGGCTTG GTCCTACAAC TCTGGTAAAA GTCCATCAGG
 1101 AAGTGCCTTG ACCAAGGCTG GAGTGGAGAG CTGTTGGTGA GATGTAAGGG

FIG. 4

1151 CAAGGTTTAG TTGCTAGATA TGTAGATGGC AAGATGGTGC TGCCAACAGC
1201 CCCCAGAGCT CTAACCCACT GAGAAACCCA GGAATGAATG ATGGGAGATG
1251 GCTTTGGTGC CAGCTGCTAG TGACATGGCT GGAAAGCTGC ACTGGCTTCG
1301 AGGCCAGACA ATTCCTCAAG GAAACATCTG GCCAGGGTGC AAGGGCCAGT
1351 TTCCTTCCTT GGAGTTCCTT TCACAGCTAA GAACATCATC CCCCACCAC
1401 TGGTTTTGTT AAAAAGTTTT CAGTATGACT TGAGCATGGT CAAGAAGCAT
1451 AGAGAGGGGG AAATAAGGGT GGAAGGAGCT GGAGAAAGCT TACAATAGGA
1501 CTGGGTAAAG GGAAGGAGAA GAAACCATTC CCGCATTCCC ATAGGAGCCA
1551 GTACCAGGAA GGCAGGTGT ACACACAGAT CTCATCTAAG GCCATGTTTG
1601 GTTTAGGGAT TACTCTTCTC CCGAATCTGA GCAGCAGCAA TACGTAAAAT
1651 ACCCACACCC ATGGCTTCCA TATTCCAGAA CTTATCACA ACCGTGTAGA
1701 GTTTACTGAG ATACCTTCGT CAGAGGATGA GTCAGAGGCC TCCTGCCTAA
1751 GGGCCCTACT GAGCAGGCAG CTAAAGGCTT CCGGGCCTCT GCAGCTCCAC
1801 AGATACAGGA GAGGGAAGCA GATAAGCCGT GGA CTCCACC TGAGCACACC
1851 TAGCTTGAGC AAAGCTGGTC AGGTACAAAT AGCAGAGGGC TGAATGTCTG
1901 TGAGCACGCC GCCTGATCCT CTGCTCCACC AACTCCTGC CGCCATGAAG
1951 CTCACAGTAA GTCAGATCTT CTTTCAATG CAGCACCATA CAACATTAAT
2001 AGTCAGGGGT GAGGGGGTCT GACTCTTACG GCACTGTTAC CATAGTGGAA
2051 ATATTCTCCT TTCTTTTCAT GGAATCATGG TGTTTACAAG CATGTCCATA
2101 GAGAAGAAGA ATTGCCCCGG AAGAGCCTGT CACAGGCTGA ATACTGTAGA
2151 ATTGTCTTTC ACACCATCTG TTCCAAGGTT CTA CTTAAGA CGAGCAGTCT
2201 CTGGGCTCCA GAAAGAGTCT TTCTTAGCCT TGATCTCTTT CTTATTTCTG
2251 ATTTCTCCTT TCTTATCCAT GATTTCCACT TTTACCAGTT CTGGGCATGT

FIG. 4 Cont.

2301 TCCGGTCAGA CTGGAAGATC ACTGTTGTCA AAAC TAGTCT TCAACACTCT

2351 TGGCTGTTAA CATGAAAACA ACGGTCCTTG GGCCCTGTGC AAGCATTTCT

2401 TGGAGAAAGT CTCTGGGGAT GAAGCTATCT CAGTTTCCCC ACTGAAGTCC

2451 TAGGATACAG AGGCTCAAAC AGAGTGCACA TATTCAATTT CAGCATACTC

2501 TATTGGCGCT GCTTTATGAA TCATATGAAT TTATGGAATT GGAAATGTAA

2551 ACTATGACCA AGAAGCGTCC ACCTCAGAAC AGGTTGGGTG GGGAAC TCCA

2601 AGCACAGGCC AGAGGGCTGC GTTTCTCTTC TAGTTCTGTC TAGAGGAGTG

2651 GTTCTCGACC TTCCTAATGC TGTGACCCTT TAATACAGTT CCTCACGTTG

2701 TCGTGACTCC CAGCCATAAA ATTACTTTCA TTGCTACTGC ATAACGTAA

2751 TTTTGCTACC ATTATGAGTT GTAATGTAAA TATCTGATAT GCAAGATACC

2801 AGATAACCTA AGAAACGGTT GTTTGACCTT TAAAGGGGTC ACAACCCACA

2851 GGTGGAGAAC TACTGGTCTA GGGTCCTTTA CAGTCCTTTA GCTGCCTCAT

2901 TTACAGGAGA TAACATCATG CTCAAAACT CCCTCCACAT TTGGCTTTTT

2951 GGGTTGTTTT GTTTTGTTTT TCAAGACAGG GTTTCTCTGT GTAGCCCTGG

3001 CTGTCCTGGA ACTCACCTTT GTAGACCAGG CTGGCCTCGA ACTCAGAAAT

3051 CCGCCTGCTT CTGCCTCCTG AGCGCTGGGA TTAAAGGCGT GCGCCACCAT

3101 GTCTGGCTCA CATCTGGCTT TTTAAGAGAC CGATTTTAAC TTCTTGCATT

3151 GAAAATAAAT ATAGTAGAAA TGCTTAACCT ACTAAGACAA TAAAAACAGG

3201 ATTCCTTCTG CTAGGAAGAA CACGTTCCAG ACTAAGGAAA AAAACCTTTT

3251 CAGGGCTTTC ATTACACTGT GCCATGCACT AATTTTATGT TTTCTTCATC

3301 AGTTTTCAGT GTCTGAAATT CAGTGTCAAA ATTCTAAGAC TACATATGAA

FIG. 4 Cont.

3351 TATCATTACA GTAACCTCAGC AATTCTATGT TACCAGTAAG TTTTCTGTGA
3401 GTTTAAAAAA AAGGTGGAAG AAGAAAGCAC AGATAGTTTA GCACATGGGT
3451 AAAATCAGTA ACTATTTCTG ATGAGCTTGG TGAAGATGCT GTAAACCATG
3501 CGACCACCAG TCCTGTTCTC TGTGCTTTCA GATGTTTCGTC GTGGGTCTGC
3551 TTGGCCTCCT TGCAGCTCCT GGTTTTGCTT ACGTAAGTCT CATTTTCTG
3601 AAGTTCATTG TCAAACTGC ATTTACAGTG AAATGTGATC TTAAGTCACC
3651 CTCTGCTTCT TATGAACATT AGACGGTCAA CATCAATGGT AATGATGGCA
3701 ATGTAGACGG AAGTGGACAG CATTCGGTGA GCATCAATGG TGTGCACAAC
3751 GTGGCCAATA TCGACAACAA TAACGGCTGG GACTCCTGGA ATAGCCTCTG
3801 GGAATATGAA AACGTATGTA ATGGACACAC AGGGTAAAGA TATGGTGTAG
3851 CCACCACCCA TTAATTTTC TGAGGTGAAT TCTAGCTGTT CATGAACATT
3901 AAAAGCTACC AGTAAAGTG CCCATTCCAC TCAAAACAAT TTTACTTTTT
3951 TGCATATAAT TATTGCTAAT AAGTATTACA CAATAGGTCG AAATCAAAG
4001 GGATCAATAG TAAGGATAAA AACTATGTAC AAAGACAAAC ACAGCATCCT
4051 TTGGTCTTCC CTGCAGAGAG TCTCCATGAT GTTAAAGGTC CAATGTTTTA
4101 TGGAGGCTGA ATGAAATACG AATGCCTCTG TGATGGAAAA GGCCCAACAT
4151 CTTATGGAGA ATGAGTGAAG TATGAATGCT ATTAGTTGTA AGAGAAGGCG
4201 ATGCAAAGCA ACACTTGGCA CCACCTGCCA ATTACTACTT TCCTATTTAA
4251 ATGTAGTTTA AAAAGCAAAG CCTGTCTTCC CTGCCTCCTG GAAACACTGC
4301 GGATGGAGGT AGACCAAGGT ATGACAGCCT TTAAAAGTTT GTCAGCAAAA
4351 CACTCCCCCA TACACACATA CACACACCCT CCTACTACAC TGGAAGTGA

FIG. 4 Cont.

4401 GCAAAGGCAG TGGGTTAGAT ATATCCACCC TCTAAGAGTT TGCAGGTCAT
4451 CTATATATGA TAGCCAGAGA CACAACGCA GGACAGCCAG ACTCTGAGCA
4501 CTCTCCCCAG CTCCTTGTAG CTCTGTTTCA GTGGTGACTT GTGACAAGAA
4551 TCCTGGGGAA CCTGTGCCTC ACTGTTCTCT GTCTTCTTTA ATAGAGTTTC
4601 GCTGCCACGA GACTCTTCTC CAAGAAGTCA TGCATTGTGC ACAGAATGAA
4651 CAAGGATGCC ATGCCCTCCC TTCAGGACCT CGATACAATG GTCAAGGAAC
4701 AGAAGGTAAA GTCCTGCCTT CTTCTTTGGA GTGACAGGAA GTCTTACAGT
4751 CTCCAGTACA CAGTGAAGTC ACCCCCATTC CCTCTTTGGT GGAGCATGAC
4801 AGCATGTTTG TCATGATAAA TGCCACAAAC ATGTAAACT GTTCAGTGTC
4851 TGCCTGAATG GAGGGTGGCT TCCACTGTGT CAGATGCCGT GGCCACATC
4901 TGCCTCTGCA GGGTCCAGTA AAGCACTGGC TATCTTGAGT GTCAGAGACC
4951 CAAAGGTCTG TACACTTCAG TACAAGCCCT CCATATTTCA AGGGCACACT
5001 CCTACAGTCG TTGGGGTTAT CAGAACTAGC AAACATAGAG ACTGGATTTT
5051 CAGATGAAAA GAAATCCTTT TTAAAGTCTA AGTATGCCTT ATACAATGTT
5101 TGAGATATTC TCAATACTAA AAAAAAAAAA ATTGTTGCTT GCTTGAAAAA
5151 CAAATGTAAC CAAGTGCCT ATATCCAGTG TCAATCATGG CTGTAGTAGA
5201 TGGGAAGAGG GAGCCCGTGG TTTTCACAGT CAGACGCCTG AGTTATTCTT
5251 CTAAGTGATA AATTGGTTCC TATAACAAGC AAGCCAGTGA ATATAAATAA
5301 GCTCTATCTC AGAAGTTATC CTGTAGTGCT ACCCTAGAAT CTAAGAGAGC
5351 AAAAGTGCTT CAAATTTTCTG AATAAGTTT GCTTTGGACT TCTGTTTTTC
5401 TAAACAATA TAACCTCAAA CCATCTAAGC CTCGTGGGAC ACTTAGAAAT
5451 ACCAAGCCAT TCAAAGCTAG AATTGTTTCT TCACCTTACT TGAAAACAAA

FIG. 4 Cont.

5501 ATGACAACCA AAAATTGTCC CCACTGCCCT TGTACATCTT CAGATCAGTA
 5551 AAGTCCTGGG CTCAGGGATC ATTCACTTTC TTTCTTTCCT TTCACACTCA
 5601 ACTTCAGGGT AAAGGGCCTG GAGGAGCTCC TCCCAAGGAC TTGATGTACT
 5651 CCGTCAACCC TACCAGAGTG GAGGACCTGA ATACATTCGG ACCAAAGATT
 5701 GCTGGCATGT GCAGGGGCAT CCCTACCTAT GTGGCCGAGG AGATTCCAGG
 5751 TGTGTACCCT GAGATGCTGT ATATCCCAAT GCAGTACTGA GAGAGCCATC
 5801 AGACACTCTA AAGTGTGACC ACAGACGGAC CAATCATGTG GATTATCAGA
 5851 GCAAACACTT GCTTGCTCCT TGTCAGACAG TTGTCCATGC TTCAAAAGTT
 5901 CATTAACAAA AATAGTTCAC AGGCTCCTCA CAGAACCTT AGTAGAATCC
 5951 ACAGCTTCTG CTCTTAGTCT TACTTTTTAG AAAGTGAGAC CCAGAGAAAG
 6001 GTCACAAAAC TTTTGTCTGG CTCAGGTTCT ATGTCTTTAA CTTTATAGAA
 6051 TACCGTCTTT CTGGGTGGGT GGGCTCTAGA GTAAACTTCA AGTGAGTTCA
 6101 AGGAAAGCAT GAGAAGTAGG GAAGACCAA TGAAAGGAGA ATGCCAATGA
 6151 AATCTATCGA TTCTATAGCG CCAATGCTTA ACTCCTAGGC GTTCAAAGAA
 6201 TAGTATCCAC AAGGTGTCAG CCTAAGATCC TAATCTAACA GCAAGTTTTC
 6251 AGATCTCTGA AGTGAAAAGA GAAAGCAAGA GAGGAACAGA GACAGAAACA
 6301 GTAAGAGACA GAGAGGCAGA GACAAAGAGA CAGGGAGAAT AGAGAGGGAT
 6351 TAAAATTAAT ATATAGTTTA GAAATTACGA CTCCTCACAG TCCCTGCAGA
 6401 GTCCTAGGAT AGGCACTGAT TTGGACTTCT TTTCTTCTCA CTAGGACCAA
 6451 ACCAGCCTTT GTACTCAAAG AAGTGCTACA CAGCTGACAT ACTCTGGATT
 6501 CTGCGGATGT CCTTCTGTGG AACATCAGTG GAGACATACT AGAAGTCACA
 6551 GGAAAACAAC CCGTGGGCTC TGACCATCGC AATGCTTGAT TATGAGAGTG

FIG. 4 Cont.

6601 TTCTCTGGGG GTTGTGATTA GCTTCTTTAA GGCTCAATAA ACCCACGTGG
 6651 CAGCACATCC AGTTTGTAAT GACATGCCTC ATGACTTCTA TGGGAGTCCA
 6701 ATGTGGCACC TGCCAGCCTG TATTCAGGAC CTCTCCGCTA TAAAGCATCC
 6751 CTCCAGAGTT TTCAAATACT ACAAAGCACA GCCTGGGTTT GGGCTCAGAT
 6801 AGGCCACTGC TGCCTGACTA CATTACAGAC AAACAAGTTT TAAAAGAAAG
 6851 AAAAAAGAGC TCAGAGTGGC TGAATCAGC AAGGGTGTTT TTCCTGCAAG
 6901 GAGCCAGAAG TATCAATAAT CACCCAAGGA GGAGACACTG GGAATGAGAG
 6951 ACTAGAACAC ACGCCTGCAG ATACGGAGAA CCTCAGCATT GCCGCTCTCT
 7001 CCCATAACTG CACACCCCCT TCTGTAACT CTGCTTCTTT CTTTCACCTG
 7051 AAGATGGCCC TTGCTTTTTT TTATTATAGG ACANGATAAC TAGACCAGAA
 7101 AGTCAACCTG ACTCTCTACA TTTATATGTC TTCCAGNTC AAGAAATATT
 7151 ATTTACTGGT GAATGGCACT TCTATATTCC CTGTTCAA TAAGTCTACA
 7201 GGATCCATTC ATTGACAGGC CAAGAGTGAG ATCACATGAT ACCCAAGCAC
 7251 ATGGGTCTTT CCTTGAAGGA GAAGGATCCA

FIG. 4 Cont.

1 ATGTTGTCGTCGGGTCTGCTTGGCCTCCTTGCAGCTCCTGGTTTTGCTTACACGGTCAAC
61 ATCAATGGTAATGATGGCAATGTAGACGGAAGTGGACAGCATTGGTGAGCATCAATGGT
121 GTGCACAACGTGGCCAATATCGACAACAATAACGGCTGGGACTCCTGGAATAGCCTCTGG
181 GACTATGAAAACAGTTTCGCTGCCACGAGACTCTTCTCCAAGAAGTCATGCATTGTGCAC
241 AGAATGAACAAGGATGCCATGCCCTCCCTTCAGGACCTCGATACAATGGTCAAGGAACAG
301 AAGGGTAAAGGGCCTGGAGGAGCTCCTCCCAAGGACTTGATGTACTCCGTCAACCCTACC
361 AGAGTGGAGGACCTGAATACATTCGGACCAAAGATTGCTGGCATGTGCAGGGGCATCCCT
441 ACCTATGTGGCCGAGGAGATTCCAGGACCAAACCAGCCTTTGTACTCAAAGAAGTGCTAC
501 ACAGCTGACATACTCTGGATTCTGCGGATGTCCTTTTGTGGAACATCAGTGGAGACATAC
561 TAG

FIG. 5

1 MKLTMFVVGL LGLLAAPGFA YTVNINGNDG NVDGSGQQSV SINGVHNVAN
51 IDNNNGWDSW NSLWDYENSE AATRLFSKKS CIVHRMNKDA MPSLQDLDTM
101 VKEQKGKGGP GAPPKDLMYS VNPTRVEDLN TFGPKIAGMC RGIPTYVAEE
151 IPGPNQPLYS KKCYTADILW ILRMSFCGTS VETY

FIG. 6

1 atgcctgact tctcacttca ttgcattggt gaagccaaga tgaagttcac
 51 aattgccttt gctggacttc ttgggtgtctt cctgactcct gcccttgctg
 101 actatagtat cagtgtcaac gacgacggca acagtgggtg aagtgggcag
 151 cagtcagtga gtgtcaacaa tgaacacaac gtggccaacg ttgacaataa
 201 caatggatgg aactcctgga atgccctctg ggactataga actggctttg
 251 ctgtaaccag actcttcgag aagaagtcac gcattgtgca caaatgaag
 301 aaggaagcca tgccctccct tcaagccctt gatgcgctgg tcaaggaaaa
 351 gaagcttcag ggtaagggcc cagggggacc acctccaag agcctgaggt
 401 actcagtcaa cccaacaga gtcgacaacc tggacaagtt tggaaaatcc
 451 atcgttgcca tgtgcaagg gattccaaca tacatggctg aagagattca
 501 aggagcaaac ctgatttcgt actcagaaaa gtgcatcagt gccaatatac
 551 tctggattct taacatttcc ttctgtggag gaatagcgga gaactaa

FIG. 7

1 MKFTIAFAGL LGVFLTPALA DYSISVNDDG NSGGSGQQSV SVNNEHNVAN
 51 VDNNGWNSW NALWDYRTGF AVTRLFEKKS CIVHKMKKEA MPSLQALDAL
 101 VKEKKLQKGK PGGPPPKSLR YSVNPNRVDN LDKFGKSIVA MCKGIPTYMA
 151 EEIQGANLIS YSEKCISANI LWILNISFCG GIAEN

FIG. 8

1 MKFTIAFAGL LGVFLTPALA DYSISVNDDG NSGGSGQQSV SVNNEHNVAN
51 VDNNGGWSW NALWDYRTGF AVTRLFEKKS CIVHKMKKEA MPSLQALDAL
101 VKEKKLQGGK PGGPPPKSLR YSVNPNRVDN LDKFGKSIVA MCKGIPTYMA
151 EEIQGANLIS YSEKCISANI LWILNISFCG GIAEN

FIG. 9

Human	1	MKFTIVFAGLLGVFLAPALANYNIDVNDNNNAGSGQQSVSVNNEHNVAN	50
Pig	1	MKFTIAFAGLLGVFLTPALADYSISVNDDGNSGGSGQQSVSVNNEHNVAN	50
	51	VDNNNGWDSWNSIWGYGNGFAATRLFQKKTCTIVHKMKKEVMPSIQSLDAL	100
	51	VDNNNGWNSWNALWSYRTGFAVTRLFRKKSCIVHKMKKEAMPSLQALDAL	100
	101	VKEKKLQKGKPGGPPPKGLMYSVNPKNVDDLKFGKNIANMCRGIPTYMA	150
	101	VKEKKLQKGKPGGPPPKSLRYSVNPNRVDNLDKFGKSIVAMCKGIPTYMA	150
	151	EEMQEASLFFYSGTCYTTSVLWIVDISFCGDTVEN	185
	151	EEIQGANLISYSEKCSANILWILNISFCGGIAEN	185

FIG. 10

	1				50
Human	MKFTIVF.AG	LLGVFLAPAL	ANYNIDVN.D	DNNNAGSGQQ	SVSVNNEHNV
Pig	MKFTIAF.AG	LLGVFLTPAL	ADYSISVN.D	DGNSGGSGQQ	SVSVNNEHNV
Mouse	MKLTM.FVVG	LLGLLAAPGF	A.YTVNINGN	DGNVDGSGQQ	SVSINGVHNV
	51				100
Human	ANVDNNNGWD	SWNSIWDYGN	GFAATRLFQK	KTCIVHKMNK	EVMPISIQSLD
Pig	ANVDNNNGWN	SWNALWDYRT	GFAVTRLFEK	KSCIVHKMKK	EAMPSLQALD
Mouse	ANIDNNNGWD	SWNSLWDYEN	SFAATRLFSK	KSCIVHRMNK	DAMPSLQDLD
	101				150
Human	ALVKEKKLQG	KGPGGPPPKG	LMYSVNPKNV	DDLSKFGKNI	ANMCRGIPTY
Pig	ALVKEKKLQG	KGPGGPPPKS	LRYSVNPNRV	DNLDKFGKSI	VAMCKGIPTY
Mouse	TMVKEQK..G	KGPGGAPPKD	LMYSVNPTRV	EDLNTFGPKI	AGMCRGIPTY
	151				188
Human	MAEEMQEASL	FFYSGTCYTT	SVLWIVDISF	CGDTVEN	
Pig	MAEEIQGANL	ISYSEKCISA	NILWILNISF	CGGIAEN	
Mouse	VAEEIPGPNQ	PLYSKKCYTA	DILWILRMSF	CGTSVETY	

FIG.11

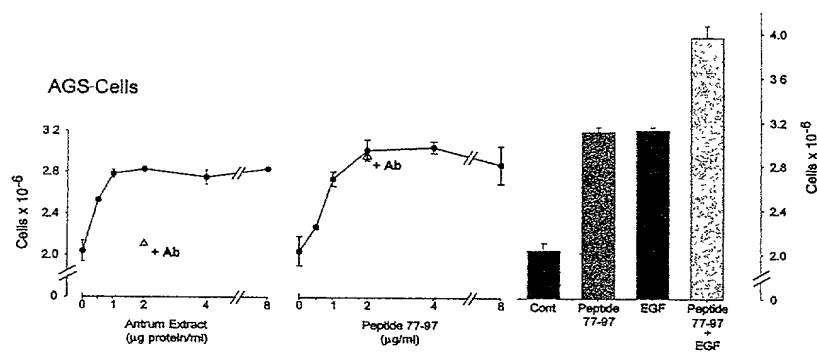


FIG. 12

